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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
(TAKE HOME)
SEMESTER I
SESSION 2020/2021**

COURSE NAME : RENEWABLE ENERGY APPLICATIONS
COURSE CODE : BNB 40803
PROGRAMME : BNB
EXAMINATION DATE : JANUARY 2021/ FEBRUARY 2021
DURATION : 3 HOURS
INSTRUCTION : ANSWER ALL QUESTIONS ONLY
(OPEN BOOK)

THIS QUESTION PAPER CONSISTS OF TWO (2) PAGES

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- Q1** (a) Sketch and differentiate the energy process application for terms below:
- (i) Generatic.
 - (ii) Co-generation
 - (iii) Tri-generation
- (15 marks)
- (b) From answer **Q1(a)**, summarize the implementation established in Malaysia Energy Policy.
- (10 marks)
- Q2** (a) Choose suitable color for Photovoltaic Solar Panel and support your answer with light spectrum wavelength.
- (10 marks)
- (b) With an illustration, analyze how we can acquire constant solar energy supply for factory or large usage.
- (10 marks)
- (c) From answer **Q2(b)**, if the renewable energy exceeds the daily consumption usage, recommend **ONE (1)** action or method that owner can gain advantage of the surplus energy.
- (10 marks)
- Q3** As an engineer technologist, you are required to prepare a proposal on renewable energy generation plant in rural area. Sabah.
- (a) Sketch and briefly design suitable process of energy generation.
- (10 marks)
- (b) During the design stage, categorize **SIX (6)** important classifications need to be considered for effective power generation.
- (6 marks)
- (c) Critique **THREE (3)** shortcomings effects from these construction activities
- (9 marks)
- (d) Differentiate between renewable energy and energy efficiency technology.
- (10 marks)
- (e) From your point of view, which will be the best source of energy in the future: biofuel, solar, wind or water?
- (10 marks)

-END OF QUESTIONS-